Communicable Disease Report

Hawai'i Department of Health
Communicable Disease Division

http://www.state.hi.us/doh/resource/comm_dis/cdr.html **January/February 2002**

Dengue Fever Update

Autochthonous Cases

The dengue fever outbreak is continuing into 2002. Through February 8, 2002, 108 autochthonous* cases of dengue fever have been confirmed in the State of Hawai`i by the Department of Health (DOH). By island, 79 (73%) were on Maui with 68 (86%) cases from the Hana area, 25 (23%) on O`ahu with clusters from Laie, Hauula and the Kaneohe areas, and four 4%) cases on Kaua`i. *Aedes albopictus* has been identified as the vector of this outbreak. The geographic distribution of cases is consistent with the mosquito's distribution in rural forested areas, as opposed to outbreaks seen in densely populated areas which are associated with the classic dengue vector, *Aedes aegypti*. *A. aegypti* is not known to be present on Maui, O`ahu or Kaua`i.

By date of onset (See Figure 1), the first case identified retrospectively was ill in the second week of June 2001, with the most recent case having symptom onset during the last week of January 2002.

Ages ranged from six months to 77 years with a median of 44 years. By age group, eight cases (7%) were 0-9 years of age, 18 (17%) were 10-19, 8 (7%) 20-29, 15 (14%) 30-39, 21 (19%) 40-49, 28 (26%) 50-59, and 10 (9%) >60 years of age. Sixty-six (61%) were male and 42 (39%) were female.

Fig 1. Confirmed AUTOCHTHONOUS Dengue Fever by week of onset N = 106

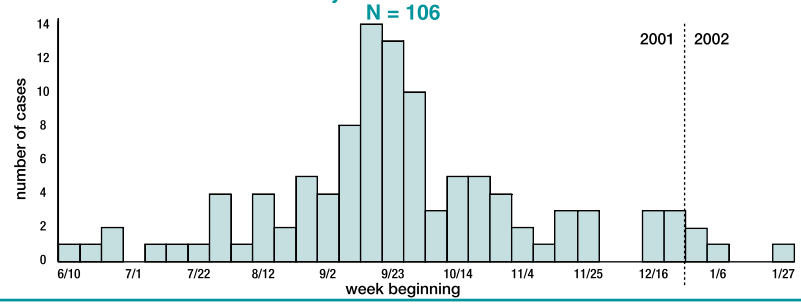
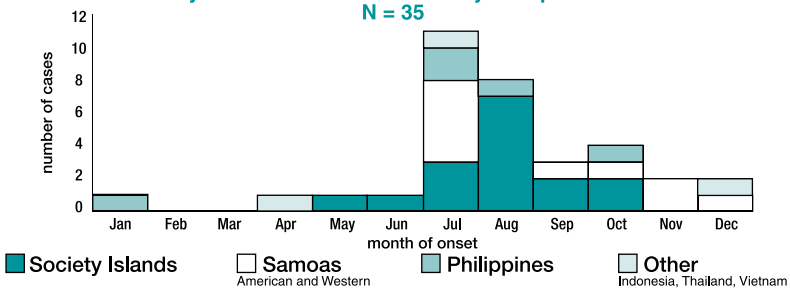


Fig 2. Confirmed IMPORTED Dengue Fever: 2001 by month of onset and country of exposure N = 35



There were no fatalities. None of the cases experienced dengue shock syndrome nor dengue hemorrhagic fever, although they could occur in the future with a subsequent infection associated with a different serotype of the virus.

Of the 1053 patients tested for dengue fever, 108 (10%) were positive, 901 (86%) were negative and 44 (4%) were inconclusive, needing a second blood test to determine whether dengue was the cause of illness.

Dengue type 1 virus was isolated from 17 patient sera by the Centers for Disease Control and Prevention (CDC). In this outbreak, the virus probably entered the State from a case exposed in the Society Islands and/or American or Western Samoa. Serotype 1 was originally named the Hawai`i type because it was first identified in Hawai`i during the 1940's outbreak.

* *Autochthonous refers to cases native to or originating in Hawai`i.*

continued on page 2

Dengue Fever Update

continued from page 1

Imported Dengue Fever

In 2001, 35 imported cases were also confirmed in the State. Most of the cases were diagnosed in July and August, and coincided with ongoing epidemics in the Society Islands and American and Western Samoa (See Figure 2). Cases were exposed in the Society Islands (16), American and Western Samoa (10), the Philippines (6), Indonesia (1), Thailand (1) and Vietnam (1).

By island, 23 cases occurred on O`ahu, four on Maui, four on Hawai`i, two on Kaua`i and two who were in transit to other destinations but whose illnesses were diagnosed in Hawai`i.

Ages ranged from 7-66 with a median of 30 years. By age group, two (6%) were 0-9 years of age, two were 10-19 (6%), 12 (34%) were 20-29, six (17%) were 30-39, five (14%) were 40-49, six (17%) were 50-59, and two (6%) were >60 years. Nineteen (54%) were male and 16 (46%) were female.

Eleven (31%) cases were hospitalized. A patient exposed in the Philippines developed dengue hemorrhagic fever and recovered. There were no fatalities from the disease.

Dengue type 3 virus was isolated from a patient who was exposed in the Philippines, while dengue type 1 virus was isolated from two cases who were exposed in American Samoa.

Table: Vector Control Dengue Activity
September-December 2001

Island	Work Orders Received [1]	No. Homes Inspected[2]	No. of Homes Sprayed[3]	No. Work Sites Sprayed/Treated[3]
O`ahu	455	11,460	1,288	5,592
Maui	553	1,352	1,087	65
Kaua`i	18	1,889	550	763
Hawai`i	88	1,550	355	13

[1] Requests sent to Vector Control By Epidemiology when notified of a possible case of dengue fever.
[2] Includes multi-family units in a building or adjacent buildings (within 200 yards of a reported possible case).
[3] A 200 yard radius is sprayed from the suspected site of exposure (corresponding to the maximum flight range of the mosquito) which may involve multiple family units, homes or work sites.

Vector Control Activities

From September (when the outbreak became known) through December 2001, the DOH Vector Control Branch implemented mosquito inspection and control activities statewide and is continuing its aggressive mosquito control/abatement activities.

Recommendations for Dengue Testing

The DOH is recommending that serologic specimens for possible dengue fever be collected six or more days after the patient's onset of illness. Serologic evaluation of specimens collected earlier than six days after illness onset for dengue is not recommended because results are most likely to be inconclusive.

Because IgM antibodies for dengue virus take time to develop, negative results on a specimen obtained <6 days after onset are not considered definitive and a second sample must be collected and tested. However, a final determination as to whether or not the patient has had recent dengue infection can be made on a single sample drawn >6 days after onset.

Current screening of patients with undiagnosed febrile illness for dengue fever indicates a low rate of positive results for dengue IgM antibodies. Only about 2% of all samples tested in recent weeks have been positive for dengue virus infection. The vast majority of persons evaluated for dengue fever at present are 'ruling out' for the infection.

The Hawai`i State Laboratories Division on O`ahu is using the CDC dengue IgM capture ELISA reference test on all specimens collected in the State. Results are now available to clinicians much earlier than when samples were sent to the CDC laboratory in Puerto Rico.

The DOH welcomes reports of possible dengue fever among patients at any time during the course of their illness. The DOH will continue to assist patients with suspected dengue in implementing appropriate mosquito control precautions. Control measures can be instituted in response to reports of suspect cases even before any specimens for dengue antibody testing are collected.

For more information, please call the Epidemiology Branch in Honolulu at (808) 586-4586, (808) 933-0912 on Hawai`i, (808) 984-8213 on Maui, and (808) 241-3563 on Kaua`i. For Vector Control assistance, please call (808) 831-6767 on O'ahu, (808) 933-4386 on Hawai`i, (808) 873-3560 on Maui, and (808) 241-3306 on Kaua'i.

Submitted by David M. Sasaki, D.V.M., M.P.H., Veterinary Medical Officer, and Tammy Tom, M.A., M.S., Biostatistician, Bioterrorism Preparedness and Response Section, Epidemiology Branch.

Communicable Disease Report

Communicable Disease Division	586-4580
Epidemiology Branch	586-4586
Tuberculosis Disease Control Branch	832-5731
Hansen's Disease Control Branch	733-9831
STD/AIDS Prevention Branch	733-9010
STD Reporting	733-9289
AIDS Reporting	733-9010
Information & Disease Reporting	586-4586
After-hours Emergency Reporting	247-2191 (State Operator)
After-hours Neighbor Island Emergency Reporting	800-479-8092

The Health State
HAWAI'I STATE DEPARTMENT OF HEALTH

Editors:
David Sasaki, DVM, MPH
Mona Bomgaars, MD, MPH

Published bimonthly by the Hawai'i Department of Health, Communicable Disease Division, 1250 Punchbowl Street, Honolulu, Hawai'i 96813
Postage paid at Honolulu, Hawai'i

Anthrax Update

As of December 11, 2001 there have been 22 cases of intentional anthrax diagnosed in the United States (U.S.). There have been 11 cases of inhalational anthrax and 11 cases of cutaneous anthrax. The two initial reports were from persons who worked at the AMI Building in Boca Raton, Florida. Additional cases have been reported from New York City, New Jersey, Connecticut, and the Washington, D.C. metropolitan area. All but two cases have been epidemiologically linked to anthrax spores sent through the mail. The source of exposure in two cases remains unknown, although cross-contamination with mail that may have been sent through a Trenton, New Jersey post office is suspected. No new anthrax cases have been reported in the U.S. since November 14, 2001.

Since September 11, 2001, there have been no confirmed cases of anthrax reported to the Hawai1i Department of Health (DOH). The State Laboratories Division has examined over 400 specimens and has found no evidence of environmental anthrax spores. The main U.S. Post Office in Honolulu underwent extensive environmental testing for anthrax in November, and all tests were negative.

All health care providers must remain alert to the possibility of additional bioterrorist attacks including the possibility of new anthrax cases. Health care providers are urged to include anthrax in the differential diagnosis for patients presenting with:

• An ulcerative or necrotic skin lesion (especially if painless and associated with surrounding edema and/or a blackened eschar),
• Unexplained respiratory distress or sepsis (especially if associated with mediastinal widening on radiographic studies),
• Microbiologic findings of a Gram positive rod or Bacillus species from a sterile site (blood, cerebrospinal fluid, or pleural fluid).

Cutaneous Anthrax

The diagnosis of cutaneous anthrax is based upon the typical appearance and progression of the skin lesion, and confirmatory microbiology tests. Gram stain and culture of the skin lesion can isolate *Bacillus anthracis*. Blood cultures may be positive for *B. anthracis*. Consider skin biopsy if the patient is on antimicrobials or if Gram stain and culture are negative for *B. anthracis* and clinical suspicion remains high. Immunohistochemical stains or polymerase chain reaction testing for the presence of *B. anthracis* can be performed on the skin biopsy specimen. In this outbreak, the recommended duration of treatment was 60 days rather than the standard 7-10 days, because patients may have also been exposed to aerosolized anthrax spores.

Inhalational Anthrax

Ten of the 11 recent cases of inhalational anthrax on the mainland had abnormal chest x-rays on initial presentation. Chest x-ray abnormalities included mediastinal widening, paratracheal and hilar fullness, pleural effusions, and pulmonary infiltrates. Pulmonary infiltrates or effusions were initially seen in two cases without evidence of mediastinal widening. Chest computed tomography was helpful in further characterizing abnormalities in the lungs and mediastinum and was more sensitive than chest x-ray in revealing mediastinal lymphadenopathy. Hemorrhagic pleural effusions often requiring chest tube drainage were common. Blood cultures were positive for all that had not previously received antibiotics. Positive blood culture results were available within 18 to 24 hours after specimens were obtained.

The diagnosis of anthrax was established in three patients without growth of *B. anthracis* from clinical specimens. Immunohistochemical staining of pleural fluid, pleural or transbronchial biopsy specimens for *B. anthracis*-specific cell wall and capsular antibodies confirmed the diagnosis in three cases. *B. anthracis* DNA was also identified by polymerase chain reaction tests on pleural fluid or blood. Serology tests from one patient demonstrated a > 4-fold increase in levels of serum antibody (IgG) to the protective antigen component of anthrax toxin. Autopsies of all fatal cases demonstrated hemorrhagic mediastinal lymphadenitis and disseminated *B. anthracis* infection.

Patients sought care a median of 3.5 days (range 1 to 7 days) after onset of symptoms. Eight of 11 patients were in the initial phase of illness when they first sought care. Of these eight, six received antibiotics with activity against *B. anthracis* on the first day of care, and all six survived.

Treatment

Treatment recommendations for anthrax remain the same as stated in the October 18, 2001 DOH Anthrax Alert (available on the DOH website at *http://www.state.hi.us/doh/anthrax/index2.html*) with the following clarifications:

1. For inhalational anthrax, anthrax meningitis, and extensive or bacteremic cutaneous anthrax, at least two intravenous antibiotics effective against *B. anthracis* are recommended for initial therapy.

2. Centers for Disease Control (CDC) Recommendations – October 26, 2001

• **CDC recommends ciprofloxacin or doxycycline** as part of initial therapy of inhalational or cutaneous anthrax. **They also state that combination therapy with two or more antimicrobials may be appropriate in patients with severe infection.** The CDC believes that the use of penicillin or amoxicillin for treatment of persons with anthrax infection may lead to drug resistance to this class of

continued on page 4

Anthrax Update

continued from page 3

antibiotics during therapy due to the production of beta-lactamases by this strain of *B. anthracis*. They have concluded that the likelihood of inducing penicillin resistance is significantly higher in infections where high concentrations of organisms are present. **Therefore, the CDC does not recommend monotherapy with penicillin.**

• Rifampin, vancomycin, imipenem, chloramphenicol, penicillin, ampicillin, clindamycin, and clarithromycin are listed by the CDC as possible additional agents to use with either ciprofloxacin or doxycycline.

• Ciprofloxacin and doxycycline are known to have poor central nervous system penetration, and may not be optimal therapy for anthrax meningitis.

3. Washington Hospital Center in Washington, D.C. treated some of the inhalational anthrax patients involved in this outbreak during October 2001. Their infectious disease division developed the following guidelines for the treatment of inhalational anthrax at their institution:

• Combination therapy with **penicillin 4 million units IV every 4 hours AND ciprofloxacin 400 mg IV every 12 hours.** The rationale being that historically approximately 50% of these cases are associated with meningitis. Penicillin has been well established as a therapy in the setting of bacterial meningitis, whereas experience with ciprofloxacin is still limited. In the event of a penicillin allergy, they recommend the combination of doxycycline AND ciprofloxacin.

• They recommend the **addition of clindamycin 900 mg IV every 8 hours** (as a third antibiotic) if the patient has signs of mediastinitis, bacteremia, or hemodynamic instability. The rationale is to inhibit toxin production, analogous to the toxic shock syndrome associated with staphylococcal or streptococcal infections.

4. Some experts recommend that corticosteriods be considered for extensive edema or swelling of the head and neck region associated with cutaneous anthrax.

5. Total duration of therapy is 60 days for both cutaneous and inhalational anthrax. Initial intravenous antibiotic therapy can be changed to oral therapy when clinically appropriate to complete the 60-day course of treatment.

6. Limited clinical experience is available and no controlled trials in humans have been performed to validate current treatment recommendations for inhalational anthrax.

References:

1. Johns Hopkins University Center for Civilian Biodefense Strategies. *http://www/hopkins-biodefense.org/*

2. CDC. "Update: Investigation of bioterrorism-related anthrax and interim guidelines for clinical evaluation of persons with possible anthrax." *MMWR* 2001;50:941-948.

3. CDC. "Update: Investigation of bioterrorism-related anthrax and interim guidelines for exposure management and antimicrobial therapy." *MMWR* 2001;50:909-919.

4. Inglesby TV, Henderson DA, Bartlett JG, et al. "Anthrax as a biological weapon: medical and public health management." *JAMA* 1999; 281:1735-45.

Submitted by Philip P. Bruno, D.O., F.A.C.P., former Chief, Communicable Disease Division

2002 Recommended Childhood Immunization Schedule

The recommended Childhood Immunization Schedule for 2002 was published in the January 18, 2002 issue of MMWR. The following is a synopsis of the recommendations.

The content of the 2002 schedule has remained the same as the 2001 schedule. However, the format has been changed, based on a design developed by the Minnesota Department of Health. The current recommendations and new format have been approved by the Advisory Committee on Immunization Practices (ACIP), the American Academy of Pediatrics (AAP), and the American Academy of Family Physicians (AAFP). The new design highlights the importance of:

- catch-up vaccination
- the preadolescent visit
- the preference for administering the first dose of the hepatitis B vaccine series at birth
- vaccines for selected at-risk groups.

In the new format, the importance of assessing whether children aged 2 – 18 years require any catch-up vaccination is emphasized by the use of hatched bars. The schedule also underscores the importance of the visit at age 11-12 years when immunization status should be routinely reviewed and all necessary vaccines administered.

Hepatitis B Vaccine

The schedule indicates a preference for administering the first dose of hepatitis B vaccine to all newborns soon after birth and before hospital discharge. Administering the first dose of hepatitis B vaccine at birth should minimize the risk for infection due to errors in maternal hepatitis B surface antigen (HBsAg) testing or reporting, or from exposure to persons with

continued on page 5

Communicable Disease Administrative Rule Changes

In the American legal system, *laws* set government policy and set general mandates and purposes to be accomplished. *Laws* are enacted by the legislature, subject to approval or a veto by the chief executive and, rarely a legislative override of a veto. *Administrative rules* provide detailed requirements for implementation and compliance with the law. Rules specify the specific means by which policy is implemented. Thus, for example, Hawai`i law (§325-2 HRS) requires that healthcare providers and laboratories report the incidence of diseases dangerous to the public health in a manner specified by the Department of Health (DOH). The specific diseases that are reportable, and the specific manner of reporting are detailed in *Administrative Rules (chapter 11-156)*. Rules are authorized by the legislature in law, proposed by an executive department, reviewed by the public, revised as may be indicated, and approved by the Governor. *Administrative rules* have the force of law.

Three chapters of rules related to communicable diseases have recently been revised and updated:
11-156 - *Communicable Disease*
11-157 - *Immunization and Examination* (School health requirements)
11-164 - Tuberculosis

The rules are available on the internet at the following sites:
http://www.state.hi.us/doh/rules/11-156.pdf
http://www.state.hi.us/doh/rules/11-157.pdf
http://www.state.hi.us/doh/rules/11-164.pdf

Printed copies from earlier rules may also be obtained from the program offices.

Major changes are summarized below. More detailed information may be obtained from the respective programs or from Bart Aronoff at (808) 586-4580.

Chapter 11-156, Communicable Diseases

The most significant change to this chapter has been the adoption of a requirement for un-named reporting of HIV infection.

As continuing advances in treatment have greatly retarded the progression of Human Immunodeficiency Virus (HIV) disease to Acquired Immune Deficiency Syndrome (AIDS), AIDS case reporting has lost value as an epidemiologic tool. HIV reporting has long been a politically sensitive issue, based on fears of disclosure and subsequent discrimination. The DOH worked with a committee of physicians, AIDS service organization representatives, and community members to develop an "unnamed" reporting system that distinguishes individuals without identifying them to the DOH.

Health care providers are now required to report the first positive HIV test of each patient whose specimen is submitted for testing or whose positive HIV test result is received from a laboratory. Unique identifiers, rather than names, are to be used in reporting test results. Laboratories are required to report all tests that unequivocally indicate that the subject of the test is infected with HIV, using unique identifiers, rather than names. Tests conducted at anonymous HIV test sites, and tests conducted pursuant to OSHA Bloodborne Pathogens rules are excluded from the reporting requirement.

New reporting requirements have been established for five diseases based on local and national bioterrorism concerns.

continued on page 8

Childhood Immunization

continued from page 4

chronic hepatitis B virus (HBV) infection in the household. It can also increase the likelihood of completing the vaccine series. Only monovalent hepatitis B vaccine can be used for the birth dose.

Vaccines for Selected Populations

High-risk children aged 24-59 months should receive catch-up pneumococcal conjugate vaccine (PCV) doses, if indicated. Pneumococcal polysaccharide vaccine (PPV) is recommended in addition to PCV for certain high-risk groups. Annual influenza vaccine is recommended for high-risk children.

Vaccine Supply

As a result of vaccine supply shortages (currently Td, PCV7, and possibly DTaP), deferral of some doses of vaccines has been recommended. Healthcare providers should maintain a record of patients for whom vaccination has been deferred and should recall them as soon as the supply has been restored.

Vaccine Information Statements

The National Childhood Vaccine Injury Act requires that all health-care providers give parents or patients copies of Vaccine Information Statements before administering each dose of the vaccines listed in the schedule.

For further information, please see the enclosed copy of the Recommended Childhood Immunization Schedule – United States, 2002, call the Hawaii Immunization Program at (808) 586-8332 in Honolulu, or visit the CDC National Immunization Program website at http://www.cdc.gov/nip.

Reference:

Centers for Disease Control and Prevention. Recommended Childhood Immunization Schedule – United States, 2002. *MMWR* 2002; 51:31-33.

CDA - Rule Changes

continued from page 5

Q-fever, smallpox, and tularemia have been returned to the list of notifiable diseases. Reporting requirements for these diseases had been previously eliminated in an effort to reduce reporting requirements, since they had not been recently encountered in Hawai`i if ever.

Hepatitis E, an acute, self-limited disease, is transmitted via the oral-fecal route and is a major cause of viral hepatitis in much of the developing world, where it causes rampant sporadic infections, large epidemics and causes high mortality among pregnant women. Based on reports of imported cases and the recent availability of polymerase chain reaction (PCR) and serologic antibody (ELISA) tests to detect it, reporting of hepatitis E infections has been established. Local transmission has not (yet) been documented.

Chancroid has also been reestablished as a notifiable disease.

Laboratory reporting requirements for *Clostridium tetani, Coxiella burnetii, Francisella tularensis, Haemophilus ducreyi,* hepatitis E, *Toxoplasma gondii,* and variola virus have been added.

Chapter 11-157, Immunization and Examination

This chapter includes all school health requirements for immunizations and physical examinations for students of all schools in the state, ranging from preschool through post-secondary schools. It also includes tuberculosis (TB) examination requirements for preschool through high school.

The most significant changes to these chapters are the addition of varicella immunization for school entry and addition of hepatitis B, measles, mumps, rubella and varicella immunization for entrance into grade 7. These changes implement recommendations of the Advisory Committee on Immunization Practices, the American Academy of Pediatrics, the American Academy of Family Physicians, and the American Medical Association.

Provisions were also added to permit substitution of serologic evidence of immunity for a record of immunizations for certain diseases, and to permit substitution of a practitioner's report of a history of varicella immunization. The minimum ages and intervals for immunizations have been modified by establishment of a grace period of four days. This will eliminate the need to re-vaccinate students for whom the interval between successive immunizations is one or two days less than the minimum required. While the grace period may be used in assessing adequacy of immunization status, it should not be used in planning immunizations, as recommendations for optimal intervals remain unchanged.

Separate preschool and school entrance requirements have been merged, eliminating the need for repeated TB and physical examinations.

Several changes have been made in TB examination requirements for school entry. A negative chest x-ray without the results of a Mantoux tuberculin skin test will no longer be sufficient for a certificate of TB examination. A Mantoux tuberculin skin test is necessary so that latent tuberculous infection may be diagnosed and treated. The requirement for tuberculosis examination for infants <12 months of age attending day care has been modified. Parents of infants who first attend school before age 12 months must turn in a TB certificate before they reach age 14 months or be excluded from school until the certificate is obtained

Physician assistants have been added to the list of practitioners who may administer and document immunizations, TB exams, and physical exams. The requirement that immunizations and examinations be certified has been modified so that a unique stamp of the practitioner may substitute for an original signature.

Chapter 11-164, Tuberculosis

The definition of "practitioner" has been expanded to include physicians, advanced practice registered nurses, and physician assistants licensed to practice in any of the states or territories of the United States.

The requirement for reporting of newly diagnosed TB cases to the DOH has been expanded to include furnishing, upon request, x-ray films and relevant medical information. In addition, practitioners responsible for clinical management or radiographic interpretation of a case of tuberculosis are required, upon request, to provide x-ray films and medical information related to the case to the DOH.

Persons who are reasonably believed by the DOH to have been exposed to communicable tuberculosis may now be required to undergo TB testing.

Finally, TB examination requirements for employees and patients of the various health care facilities licensed by the DOH, previously contained in the rules specific to licensing of each type of facility have been consolidated into a single, updated protocol. Under the new protocol, repeated annual x-rays are no longer required for persons who have tested PPD-positive. Instead, after an initial chest x-ray, they are to be screened annually for TB symptoms. Annual tuberculin skin tests are still required for persons who have previously tested negative.

Submitted by Bart A. Aronoff, M.A.T., M.P.H., Planner, Communicable Disease Division.

RED IMPORTED FIRE ANT ALERT!

The Hawaii Departments of Health and Agriculture need your assistance in preventing red imported fire ants *(Solenopsis invicta)* from establishing in Hawai`i. The red imported fire ant (RIFA) is an extremely aggressive stinging ant that is native to South America. It has invaded over 300 million acres across the mainland U.S, where it has become a significant public health hazard. These ants can attack, often en mass, with little warning. In infested areas approximately 50% of the human population is stung each year, hundreds of thousands of people receive medical attention for their stings, and thousands are treated for hypersensitivity/anaphylactic reactions. Over 80 deaths have occurred. The risk of establishment of this species in Hawai`i is high due to recent expansion of this pest's population into western states. Your assistance is requested in early detection efforts, which are critical to preventing establishment of this pest in Hawai`i. If a patient exhibits RIFA-like sting symptoms, please report it to Hawai`i Department of Health.

RIFA STINGS

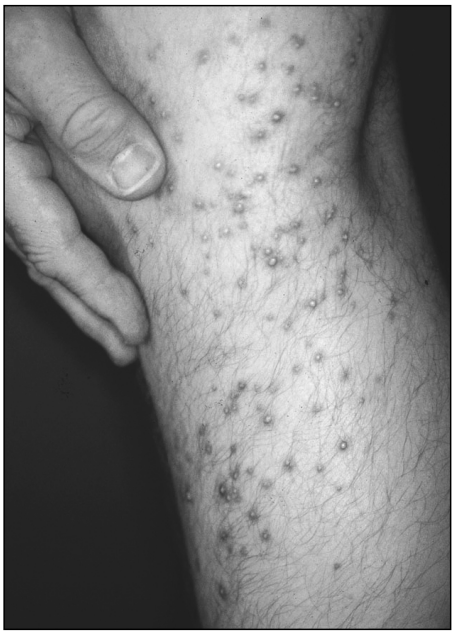
RIFA are extremely aggressive toward anything that disturbs their nest mound. When disturbed, hundreds to thousands of RIFA will rapidly swarm out over the nest mound, climbing and stinging anything nearby. Because of this aggressive behavior, and the fact that each individual ant can sting repeatedly, a single encounter with RIFA can result in many stings to the victim.

When RIFA sting, the ant grasps the skin with its mandibles, arches its back, inserts its stinger and injects venom. It then either pivots at the head, injecting an average of seven or eight stings in a circular pattern (resulting in a circular pattern of pustules), or the ant releases its hold, moves forward and repeats the process (resulting in a straight line of several pustules). Usually several (if not hundreds) ants are involved.

RIFA stinging.

THE TYPICAL STING REACTION

At each sting site, an immediate 25-50 mm dermal flare develops with formation of a wheal within one minute, and papules within two hours. Vesicles develop within four hours, at first with clear fluid that becomes cloudy within eight hours and develops into sterile pustules by 24 hours. If left alone, pustules can persist for several weeks. If disrupted (i.e. broken, scratched) secondary infections can occur.



Pustules on leg.

LESS COMMON REACTIONS

17% - 56% of victims develop a large localized erythematous painful swelling and itching that may last several days. Approximately 2% of victims develop systemic allergic reactions.

REPORTABLE SYMPTOMS:
Multiple stings (tens to hundreds), with pustule development at each sting site.

REPORT IMMEDIATELY TO:
Hawai`i Department of Health
Phone: (808) 831-6767 on O`ahu

Submitted by Ellen Van Gelder, U.S. Geological Survey, and the Hawai`i Ant Group.

Photos courtesy of the Texas Imported Fire Ant Plan.

Aloha Dr. Bomgaars

Dr. Mona Bomgaars, Chief of the Hansen's Disease Branch from July 1997, retired from the Department of Health on December 28, 2001. During her tenure, she oversaw the reorganization and consolidation of three Hansen's disease programs into the Hansen's Disease Branch. Her career in health care included various positions at the University of Hawaii School of Medicine, Cook County Hospital and Rutgers Medical School. From 1981 to 1984, Dr. Bomgaars served as the Chief of the Communicable Disease Division and the acting Deputy Director of Medical Affairs. In addition to her work in the United States, she served as a missionary overseas in Nepal and India, most recently as Medical Director of Patan Hospital in Kathmandu, Nepal.

Dr. Bomgaars received her medical degree from the University of Nebraska, Omaha and a Masters of Public Health degree from the University of California, Berkeley. She is board certified in family practice and geriatrics. During her career, she authored or co-authored 37 papers in medical journals, while serving as an institutional consultant to 41 agencies.

Dr. Bomgaars in front of Mount Everest.

Ms. Gloria Marks, Chairperson of the Kalaupapa Patients' Advisory Council, speaking on behalf of the Kalaupapa patients, expressed great appreciation and thanks for the service and support Dr. Bomgaars gave everyone in Kalaupapa.

Her post-retirement plans include spending time with her mother in Iowa and international travel to Nepal. She will continue to be active in Hansen's disease issues through her continuing support and assistance to IDEA (an international Hansen's disease advocacy group). Her patients, staff and colleagues wish her all the best in her well-earned retirement.

Submitted by Michael Maruyama, M.P.H., Planner, Hansen's Disease Control Branch.

Bon Voyage Dr. Bruno

Philip Bruno, D.O., F.A.C.P., resigned as chief of the Communicable Disease Division (CDD), effective January 15, 2002 after three years in the position.

Dr. Bruno was a popular and well-liked administrator, who made important contributions to the Department of Health (DOH). He was instrumental in guiding and securing budgetary and program resources to continue the Medicine Bank and its humanitarian work in providing drugs and medication for those in need. He was the principal investigator for the State's Public Health Preparedness and Response for Bioterrorism federal grant. He was also instrumental in drafting an infectious disease textbook for infectious disease and emergency room physicians. He also presided over revision of the Division's three chapters of administrative rules and chaired the DOH Human Research Committee.

Following a career in the U.S. Army as an infectious disease physician, Dr. Bruno joined the DOH in 1996 as chief of the Tuberculosis Control Branch for a year before returning to private practice in Iowa. He is again returning to clinical practice with the Spark M. Matsunaga Veterans Medical Center on the grounds of Tripler Army Medical Center. We wish him well in his new position.

Submitted by Malcolm T. Tomooka, M.B.A., Public Health Administrative Officer, Communicable Disease Division, and David M. Sasaki, D.V.M., M.P.H., Veterinary Medical Officer, Epidemiology Branch.

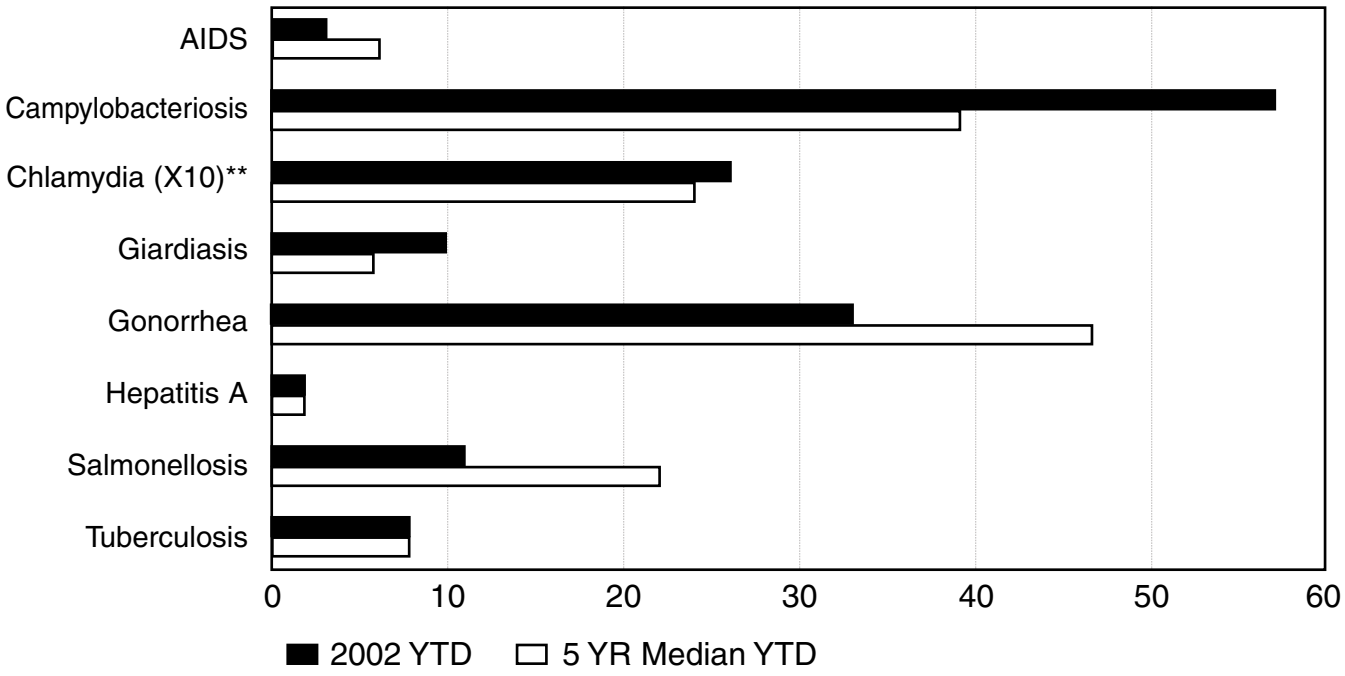
CDR Available on the Internet

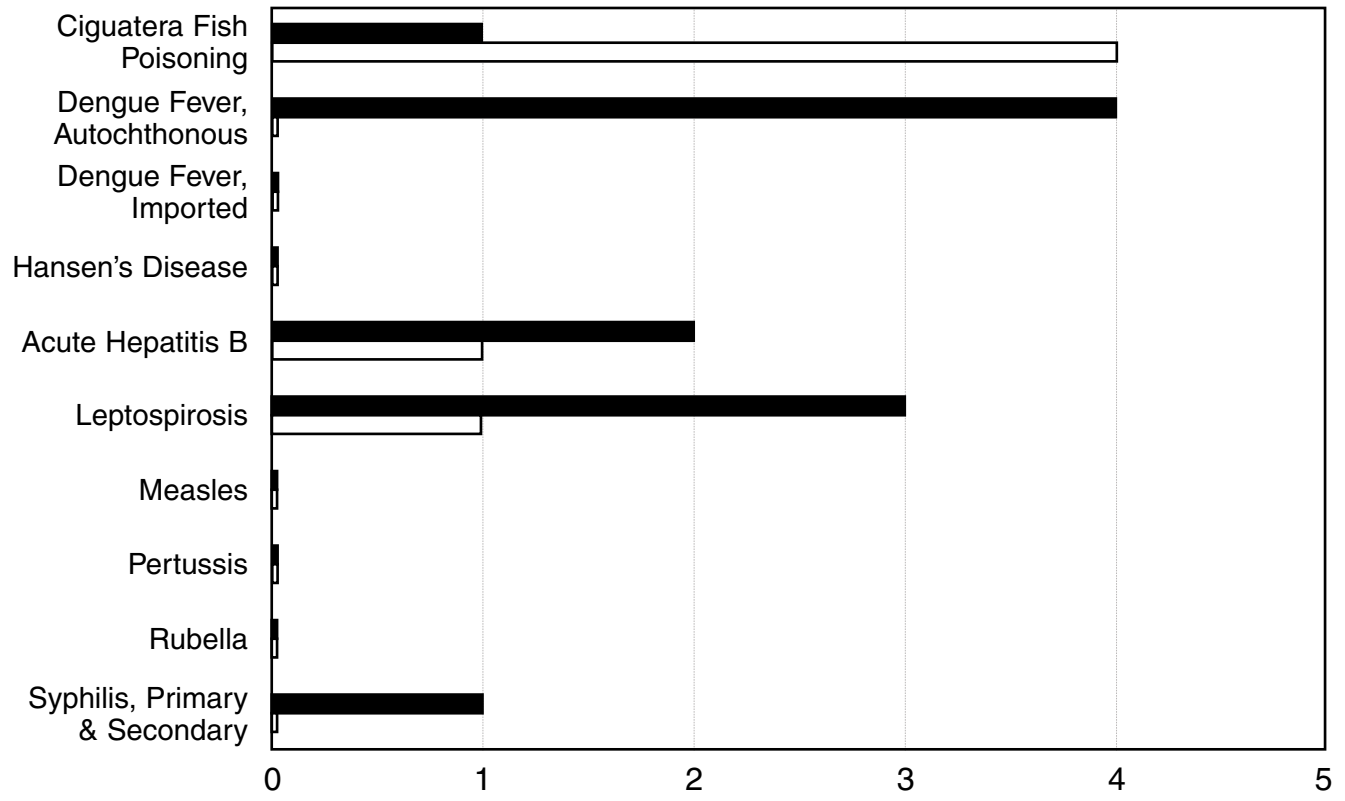
The Department of Health's (DOH) Communicable Disease Report bi-monthly newsletter may be viewed/printed on the internet. The web address is: *http://www.state.hi.us/doh/resource/comm_dis/cdr.html*. Each issue appears on the DOH web site after the issue is received in the mail by local recipients.

If you no longer wish to receive a "hard" copy, please notify the DOH Epidemiology Branch at (808) 586-4586.

Communicable Disease Surveillance

Selected Diseases by Date of Report*
Hawai'i, 2002 Year-to-date Through January





* These data do not agree with tables using date of onset or date of diagnosis.
** The number of cases graphed represent 10% of the total number reported.

State of Hawai'i
Department of Health
Epidemiology Branch
P.O. Box 3378
Honolulu, Hawai'i 96801-3378

Address Service Requested

PRSRT. STD.
U.S. POSTAGE
PAID
Honolulu, Hawai'i
Permit No. 373

Communicable Disease Report

Paul V. Effler, M.D., M.P.H., State Epidemiologist

January/February 2002

CONTENTS